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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,693	11/10/2003	Mark Anthony Aubart	IR 3663 CIP	5227
31684	7590	06/27/2005	EXAMINER	
ARKEMA INC. PATENT DEPARTMENT - 26TH FLOOR 2000 MARKET STREET PHILADELPHIA, PA 19103-3222			SANDERS, KRIELLION ANTIONETTE	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/705,693

Applicant(s)

AUBART ET AL.

Examiner

Kriellion A. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/12, 4/18</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  - a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Substituent R<sub>3</sub> is not defined. The phrase "where A is present from above 9 to about 20 mole percent...is not clear and concise. The phrase does not describe any whole molar measurements, such as the total molar percentage of A) and B), upon which to base the partial molar percents.
3. Claims 2-21 recite the limitation "R" in the description of the copolymer of formula –[A]–[B]–. [A] is said to comprise XSiR<sub>3</sub>. Claim 1 provides no recitation of an R substituent. Claim 1 describes only R<sub>3</sub>. Claims 2-21 provide no description of substituent R<sub>3</sub>. Instead claims 2-21 include a recitation or limitation for substituent R. There is insufficient antecedent basis for this limitation directed to substituent R in the claims.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gitlitz et al, US Patent No. 4,593,055.

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Gitlitz et al discloses erodible antifouling marine paints which include an organosilyl acrylate copolymer therein. The organosilyl acrylate copolymers of the patent corresponds directly to those of applicant's claims and are produced from the copolymerization of organosilyl silyl acrylate or methacrylate and one or more ethylenically unsaturated monomers. The molar amount of organosilyl silyl acrylate or methacrylate monomer to ethylenically unsaturated comonomer, ranges from 10 to 80 parts per 100 parts of copolymer. See col. 3, line 25 through col. 5, line 37.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

b. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gitlitz et al, US Patent No., 4,593,055.

8. Applicant's invention pertains to a copolymer of formula  $-[A]-[B]-$ , wherein A comprises  $\text{XSiR}_3$  and B is a residue of an ethylenically unsaturated monomer. The claims also indicate that the polymers have an erosion rate in sea water that is further set forth in claims 2, 3 and 8 as 2-15 microns per month.

Gitlitz et al discloses erodible antifouling marine paints which include an organosilyl acrylate copolymer therein. The organosilyl acrylate copolymers of the patent corresponds directly to those of applicant's claims and are produced from the copolymerization of organosilyl

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silyl acrylate or methacrylate and one or more ethylenically unsaturated monomers. The molar amount of organosilyl silyl acrylate or methacrylate monomer to ethylenically unsaturated comonomer, ranges from 10 to 80 parts per 100 parts of copolymer. See col. 3, line 25 through col. 5, line 37.

The erosion rate of the final paint is said to depend upon the total contributions of functional groups, comonomers and other components in the paint. It would have been obvious to one of ordinary skill in the art to produce an erodible antifouling marine paints, which include an organosilyl acrylate copolymer therein and select specific functional groups, comonomers and other components within that paint so as to obtain an erosion rate in salt water of 2-15 microns per month.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Kriellion A. Sanders". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Kriellion A. Sanders

Primary Examiner

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